

ABSTRACT

An optical assembly is provided that is capable of high speed operation using a vertical cavity laser such as a vertical cavity surface emitting laser (VCSEL). The optical assembly is configured to have a small form factor and uses an angled surface of an embedded fiber to internally reflect a beam from the VCSEL along the length of the fiber. The angled surface is coated to ensure that a small portion of the beam is transmitted through the fiber out of the angled surface into a monitoring diode. This geometry provides high coupling efficiency and facilitates direct active alignment between the fiber and the VCSEL.